AYDIN DISPLAYS, Inc.

9200 SERIES
USERS MANUAL

9200-0289-001
9200-0289-002
9200-0290-001

LCD Monitor User Guide

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Section 1 Display Setup

Product Safety Precautions

- Do not attempt to service this display yourself. The rear chassis has a seal so that non-qualified personnel will not expose themselves to dangerous voltages or other risks.
- To protect from electrical shock, unplug the display power supply from the wall before moving.
- Do not use this display near water
- Do not place any heavy objects on the power cords. Damage may cause electrical shock.
- Unplug the power supply from the wall or unit if one of the following conditions exists.
  - Power cord or plug is damaged or frayed.
  - Liquid is spilled into the display or the display is exposed to rain or water.
  - The display does not operate normally when the operating instructions are followed.
  - The display has been dropped or the enclosure has been damaged.
  - The display exhibits a distinct change in performance, indicating a need for service.
- Ensure that sufficient space is available around the display to provide air circulation for cooling.
- Ensure that the ambient air temperature will not exceed the specified maximum temperature.
- Do not expose the display to direct sunlight or heat.

Included Parts

Open shipping container and lay all components on a flat clean surface.
Your LCD monitor package will consist of the primary components listed below:

- LCD Monitor
- 6 ft Video Cable
- 6 ft AC Power Cord
- 6 ft RS-232 Touch Interface Cable
- Screws for Mounting to VESA Stand or Arm
- Users Manual

Connecting Your Display

1. Connect all cables to the computer first. This includes the VGA cable and Serial RS-232 touch screen connection.

2. After connecting the cables between the LCD monitor and the computer, connect the supplied AC Power Cord to a suitable power source.

3. The LCD will immediately power up.

4. If your computer is off, turn on your computer or video source.

5. Your display should now operate as a normal computer display.

Note: If for any reason the display goes blank and/or displays “Out of Range” or “No Input Signal” message on the screen, your computer or video source may be putting out a signal that is incompatible with the LCD monitor.

Below are the most common reasons a display may not operate correctly:

1. The resolution is to high or low for the LCD or wrong sync signal configuaration is provided.
2. The power source is incorrect, or there is no power. Check if the rear LED is ON or blinking. If the LED is not lit, check to be sure there is power to the unit.
3. The unit is malfunctioning. If you believe this to be true, disconnect the video cable from the rear of the LCD and connect to a known good display. If an alternate display operates correctly, and the video is in a compatible range then contact Aydin Displays, Inc. technical support.

2 Getting Started

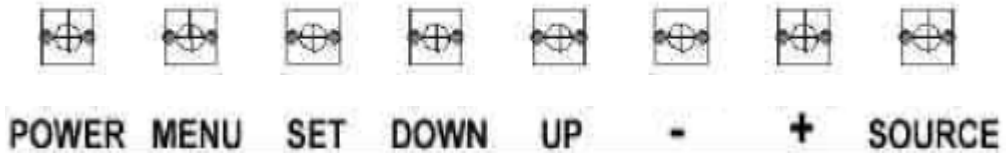
Section

Adjusting the Display

The LCD display has an embedded microprocessor in the converter card which is the electronics that drives the LCD. In most cases the unit will require very little, if any, user intervention to operate correctly – that is to produce a sharp stable picture. The microprocessor in the display has the capability to adjust itself to the computer to which it is attached. If the picture is not satisfactory, the first step is to allow the unit to attempt to adjust itself to your computer.

The membrane keypad used for adjusting the display is below:

Keyboard Layout & Function



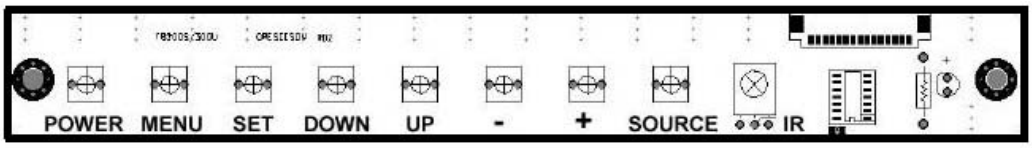
1. With the OSD off, push the **Menu** button to activate the main OSD menu.

2. Use the **Up/Down** buttons to move from one function to another. As you move from one icon to another, the function name changes to reflect the function or group of functions represented by the icon.

3. Press the **Set** button once to activate the highlighted function. Use the **Up/Down** buttons to select the function.

4. After selecting a function, use the **–** or **+** butttons to make necessary adjustments. The setting bar moves and the numeric value indicator changes to reflect the adjustment.
   NOTE: The numeric value indicator is provided as a point of reference only and has no reference to a real measurement.

5. Push the **Menu** button a couple of times to return to the main menu to select another function or to exit from the OSD.



① POWER ⇨ Function of Power ON/OFF.

② MENU ⇨ Function of showing or eliminating OSD image.

③ SET ⇨ Function of selecting function icon when main OSD is active.
Auto adjustment when you press over two seconds (DSUB ANALOG only).
Indicating current source and mode when you press once.

④ UP/DOWN ⇨ Function of moving source input or function icon.

⑥ + / - ⇨ Function of Adjusting value of function bar.

⑦ SOURCE ⇨ Function of Selecting one among four kinds of sources (DVI,D-SUB,S-VHS,VIDEO).

⑧ IR ⇨ Function of receiving remote control signal (OPTION).

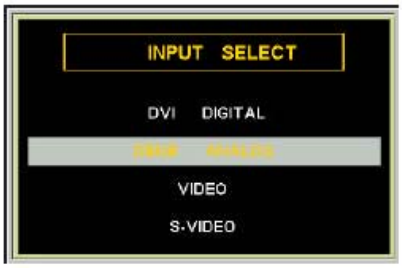
⑨ LED ⇨ Function of showing present power state.
Green: system power on Blinking : DPMS mode Off : system power off

B. INPUT SELECT

☞ Press SOURCE key on your key board. You will see the below Menu. Move input source to what you want with UP/DOWN key and press SET key. The selected input source is displayed on main screen.

☞ You can select one among four sources. (DVI DIGITAL,DSUB ANALOG, VIDEO, S-VIDEO)

☞ Repressing is the end of this state.



① DVI DIGITAL ⇨ Digital output signal of PC.

② DSUB ANALOG ⇨ Analog output signal of PC.

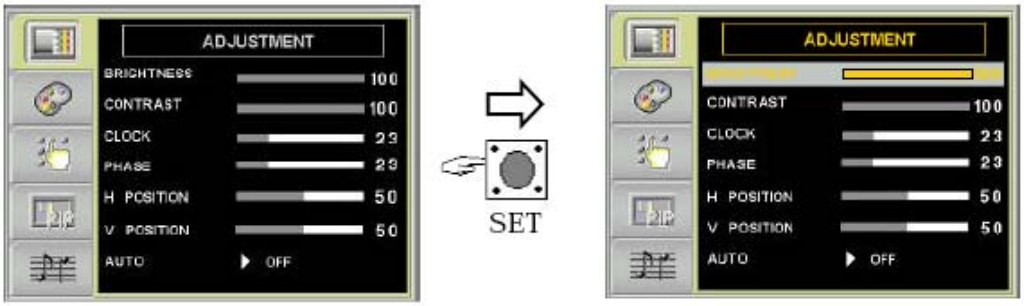
③ VIDEO ⇨ Composite siginal output of VIDEO or DVD.

④ S-VIDEO ⇨ Serparate signal output of VIDEO or DVD.

C. ADJUSTMENT

☞ You can adjust many kinds of controls about main screen. But this function is different from each source.

1) DSUB ANALOG



☞ Press MENU key,OSD screen appears. Press UP/DOWN key, you can move four function group. Press SET key at ADJUSTMENT group highlighted, press UP/DOWN key, You can move function icon bar and adjust value of each item with +/- key.

☞ Press MENU key To return previous state and press MENU key twice to exit OSD.

① BRIGHTNESS ⇨ Function of adjusting main screen brightness.

② CONTRAST ⇨ Function of adjusting main screen contrast.

③ CLOCK ⇨ Function of adjusting main screen sampling clock frequency.

④ PHASE ⇨ Function of adjusting main screen sampling clock phase.

⑤ H POSITION ⇨ Function of adjusting the horizontal position of main screen .

⑥ V POSITION ⇨ Function of adjusting the vertical position of main screen .

⑦ AUTO ⇨ Function of optimizing main screen (DSUB ANALOG only).

2) S-VHS,VIDEO

3) DVI DIGITAL

① SHARPNESS ⇨ Function of adjusting main screen sharpness.

② COLOR ⇨ Function of adjusting main screen color depth.

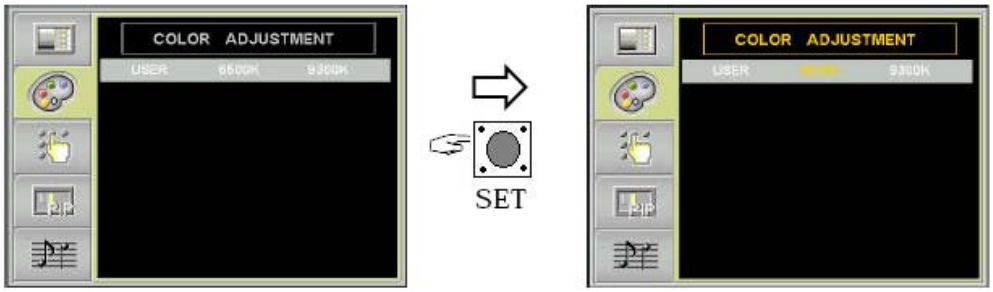
③ TINT ⇨ Function of adjusting main screen tint.

D. COLOR ADJUSTMENT

☞ You can adjust main screen color.
this is a common function about four sources.

☞ Press MENU key,OSD screen appears. Press UP/DOWN key, you can move four function group. Press SET key at COLOR ADJUSTMENT group highlighted, press UP/DOWN key, you can move function icon bar and adjust value of item with +/- key.

☞ Set MENU key To return previous state and press MENU key twice to exit OSD.



① USER ⇨ Function of adjusting R,G,B value of image respectively.
② 6500K ⇨ Function of selection Reddish color.
③ 9300K ⇨ Function of selection Bluish color.

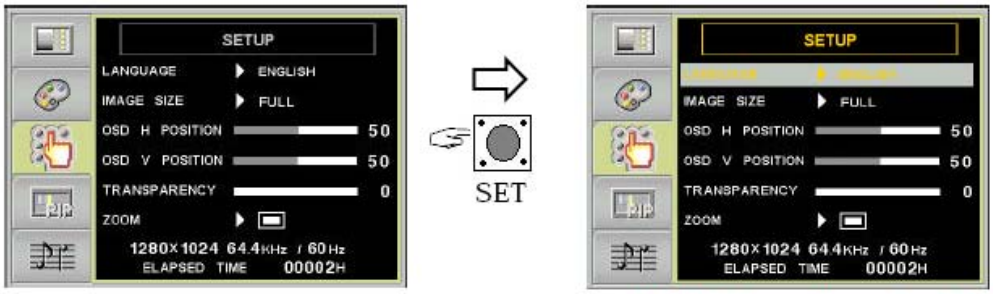
E. SETUP

☞ You can adjust additional function.
This is a common function about four source.

☞ Press MENU key,OSD screen appears. Press UP/DOWN key, you can move four function group. Press SET key at SETUP group highlighted, press UP/DOWN key, you can move function icon bar and adjust value of item with +/- key.

☞ Press SET key one more to use zoom function.

☞ Set MENU key to return previous state and press MENU key twice to exit OSD.



① LANGUAGE ⇨ Function of selection OSD language (English,Germany,France,Spain,Italy).
② IMAGE SIZE ⇨ Function of adjusting screen size according to input source
S-VHS,VIDEO ⇨ 1:1,normal1,normal2,full
DVI,DSUB ⇨ full,normal,1:1

③ OSD H POSITION ⇨ Function of adjusting the horizontal position of OSD image .
④ OSD V POSITION ⇨ Function of adjusting the vertical position OSD image .
⑤ TRANSPARENCY ⇨ Function of reflecting main image to OSD screen.
⑥ ZOOM ⇨ Function of closing up the main screen.

3 Touch Screen Setup

Section

Introduction to Touch Screens

The 9200-0289-001 and –002 are equipped with an IR (Infrared) Touch System designed to operate in a DOS environment. This IR screen replaces the old Carroll Touch Systems. The 9200-0290-001 is equipped with a SAW (Surface Acoustical Wave) Touch System OEM designed for an OEM and equipped with a serial RS-232 interface with special firmware.

Touch Screens Provided

IR	**RS-232**	**9200-0289-001**
IR	**RS-232**	**9200-0289-002**
SAW	**RS-232**	**9200-0290-001**

Touch Screen and Special Drivers

Since these touch systems are for specific DOS based systems, the drivers are embedded in OEM's equipment and not supplied by Aydin Displays, Inc.

4 Section Mounting Instructions

VESA Wall Mounting Procedure

The monitor is a self conatined rugged, industrial aluminum metal enclosure.
The rear of the unit has 4 100mm M4 holes for mounting hardware from a external arm or stand or special fixture.

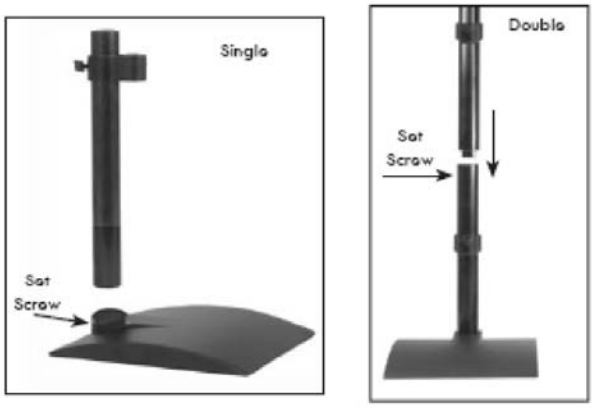
If you are using Aydin's Table Stand P/N 132-7004-001, proceed as follows:

1. Position the monitor on the face, being careful not to scratch the front.
2. Attach the 100mm bracket supplied with stand with M4 x 12 screws kits.
3. Install the arm based on the instructions.
4. Attach the power, video and touch screen cables to the under side of the monitor.

LCD Stand Installation Instructions
P/N 132-7004-001

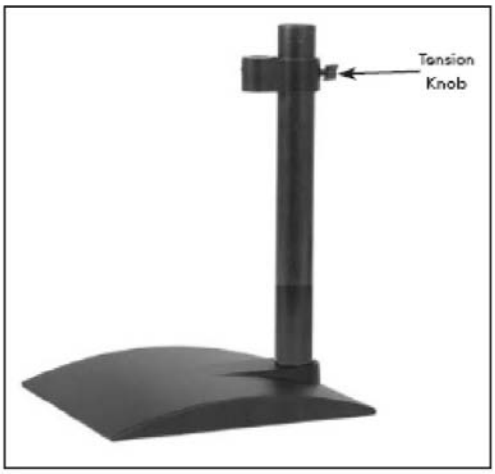
Step 1 Pole/Stand Assembly

Insert the pole into the stand and tighten set screw in back of stand using the 7/32 allen wrench.



Step 1A Collar Adjustments

Loosen the knob on the back of the collar so that the collar is able to slide up or down. Find the desired height and re-tighten the knob.



Step 3 VESA Bracket & Tilt Mechanism Assembly

Carefully remove the base from the flat panel monitor. (See your monitor's User's Guide for instructions on how to do this.)

Attach the adapter plate (75MM or 100MM) to the tilter mechanism, using four (4) 10-32 x 3/8" Flat Head Philips screws.

Step 4 Attach Tilter/VESA bracket to the monitor

Align the tilter and VESA bracket with the hole pattern on the back of the monitor.

Use the four (4) M4-12 Philips Pan Head screws to attach the plate to the back of the LCD.

Step 4 Monitor to Pole Assembly

After securing the plate to the flat panel insert the tilter into the arm.

Screw the 10-32" Philips Pan Head screw and washer and fasten them to the hole in the underside of the tilter shaft, locking the monitor in place.

Step 5 Tilt Mechanism Adjustments

Tilt the monitor so it faces upward and locate the set screw under the tilter. Insert the 7/32" Allen wrench into set screw to adjust the tilt friction.

* To tighten friction turn the wrench to the right.
* To loosen, turn the wrench to the left.

5 Troubleshooting Tips

Section

No picture	The signal cable should be properly connected to the Display and Computer. Try disconnecting the video cable from the display and connecting to another display if available to confirm the presence of proper video. Make sure power is connected to the proper AC source. Make sure the resolution mode is supported by the display and check display settings of the PC Confirm that the video cable is not defective.

Image persistence	Image persistence occurs when a ghost of an image remains on the screen after the screen image has been changed. Unlike a CRT monitor, an LCD monitor's image persistence is not permanent. To erase an image ghost, turn the monitor off for several hours. What happens is that after extened periods of operation the liquid crystals "set". To avoid this condition, install a screen saver progam on the computer.

Picture quality & image stability	Check video cable for proper grounding and shielding. Check the signal source for proper signal. Check for proper adjustment of the Phase and Frequency controls. Check for proper recommended signal timing.

Green LED not lit	Check for proper power and power connections.

Display image is not properly sized	Press the "**Select**" button to Auto Adjust the display. Adjust the Vertical and Horizontal size controls via the OSD (reference *OSD Adjustments*). Ensure that a supported mode is selected on the display card or system being used. Consult the display card or system manual for proper video.

Image will not adjust	Video timing outside of range. Use the on-screen menu to adjust the Clock Setting. Make sure timing is within VESA standard.

Slight distortion in text or graphics	Not working in native resolution.

Display is present but "bars" Appear or roll across screen	Ground loop problem between computer and display. Interference from adjacent equipment.

Vertical shaded bars on screen image	Horizontal size not properly adjusted. Adjust horizontal size.

Image is not stable	Monitor has incorrect or bad sync signals. Check for proper video cable installation. Replace suspected faulty cable. Check to ensure that video source is within the display's operating range.

Section 6 Cleaning & Maintenance

Cleaning

Occasionally clean the display panel and cabinet with a soft cloth dampened (not soaked) with a mild (non-abrasive) glass cleaner. Keep turning a fresh side of the cloth toward the screen surface to avoid scratching it with accumulated grit.

NOTE: The solvent should be applied only to the cloth, **NOT** directly on the monitor screen.

Do not use paper products as they may scratch the surface. To minimize the risk of abrasion, allow the screen to air dry. Special care should be taken when cleaning a touch screen or polycarbonate shield that is installed over the screen. Abrasive and certain chemical cleaners can damage the surface.

Never use alcoholic or ammoniac cleaners to clean the polycarbonate shield or a touch screen.

Replacing a Line Cord

To avoid shock and fire hazards, the monitor's power cord should be replaced if the insulation becomes broken or if it develops a loose internal connection.

Other Maintenance

Qualified service personnel should perform all maintenance, except for the power cord replacement described above.

7 Section Appendices

Appendix A – Video Pin Assignments

Pin assignments for the HD15 video connector

Pin 1	Red Video	Pin 9	No Connection
Pin 2	Green Video	Pin 10	Sync Ground
Pin 3	Blue Video	Pin 11	Not Used
Pin 4	Not Used	Pin 12	Bi-Directional Data
Pin 5	Return	Pin 13	Horizontal Sync
Pin 6	Red Video Ground	Pin 14	Vertical Sync
Pin 7	Green Video Ground	Pin 15	Data Clock (SCL)
Pin 8	Blue Video Ground		

Appendix B – RS-232 Pin Assignments

Pin assignment for 9 Pin Optional Touch Screen Connector

Pin 1	DCD	Data Carrier Detect
Pin 2	RD (Rx)	Receive Data
Pin 3	SD (Tx)	Transmit Data
Pin 4	DTR	Data Terminal Ready
Pin 5	SG	Signal Ground
Pin 6	DSR	Data Set Ready
Pin 7	RTS	Request to Send
Pin 8	CTS	Clear to Send
Pin 9	NC	No Connection

Appendix C – 9200 Specifications

Active Screen Area	16.06” x 12.05” (408 x 306mm)
Pixel Pitch	.255mm
Brightness	250 nits typical
Contrast	350:1
Response Time	13/12 ms typical
Lamp Life	40K
Wide Dimming Range	Optional
Max Screen Resolution	VGA / UXGA
PC Video Input	Separate Sync (5 Wire) Composite Sync (4 Wire) Sync On Green (3 Wire)
Screen Controls	Front or Rear
Video	NTSC / PAL
Native Resolution (Best Picture)	UXGA
View Angle L / R	88 / 88
View Angle Up / Dn	88 / 88
Input Voltage	90-264 VAC Auto-switching
Current Draw	.50a @ 120 VAC
Input power	50W
Bezel Finish	Black Textured
Auto Adjust	Yes, on Power Up, Manual
Infrared Touch (IR)	9200-0289-001 / 002
Surface Acoustical Wave (SAW)	9200-0290-001
Touch Interface	RS-232
DVI Interface	DVI-D Standard (Female)
PC Video Interface	VGA (HD-15F) (Female)
S-Video	4 Pin Mini Din (Female)
NTSC	RCA (Female)
Colors	24bit (16.7M)
Operating Temp	0-50 C
Storage Temp	0-60 C
Operating Humidity	10% to 80% relative humidity non-condensing
Storage Humidity	10% to 95% relative humidity non-condensing
NEMA Front End	12